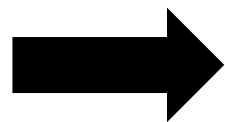
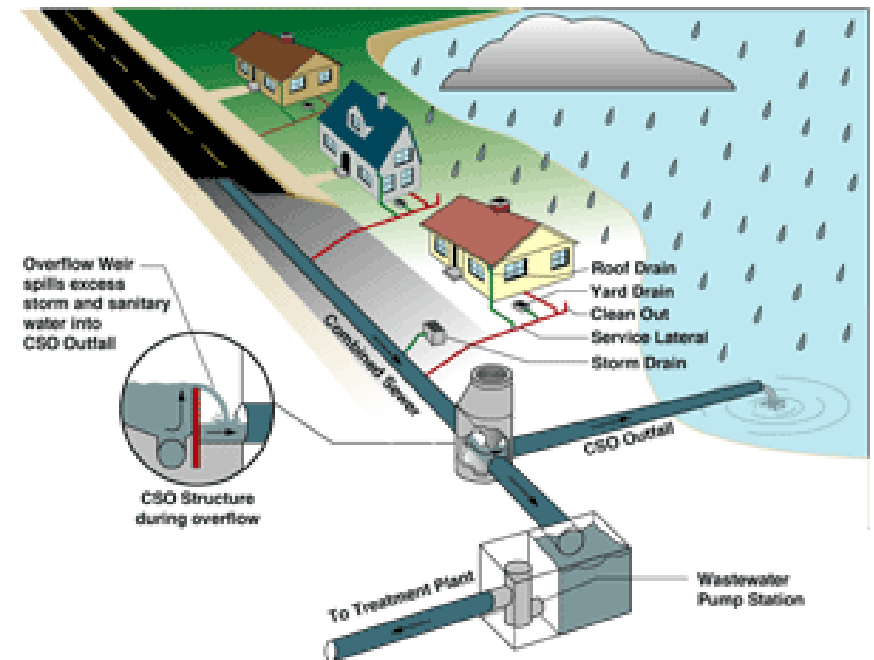
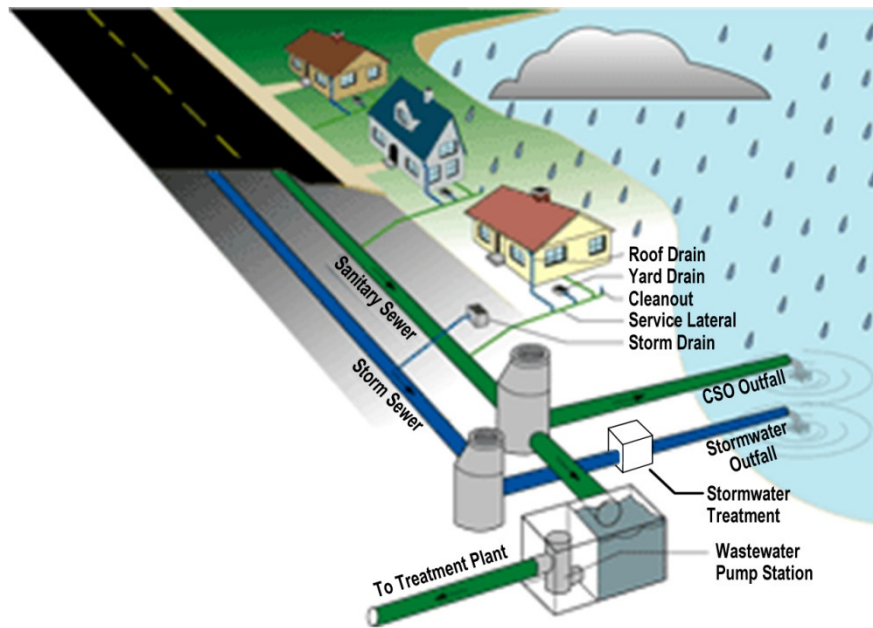


Change  
this...

... to this



# Combined Sewers



# Location of City CSO Outfalls

- SPU system only
- 90 CSO outfalls

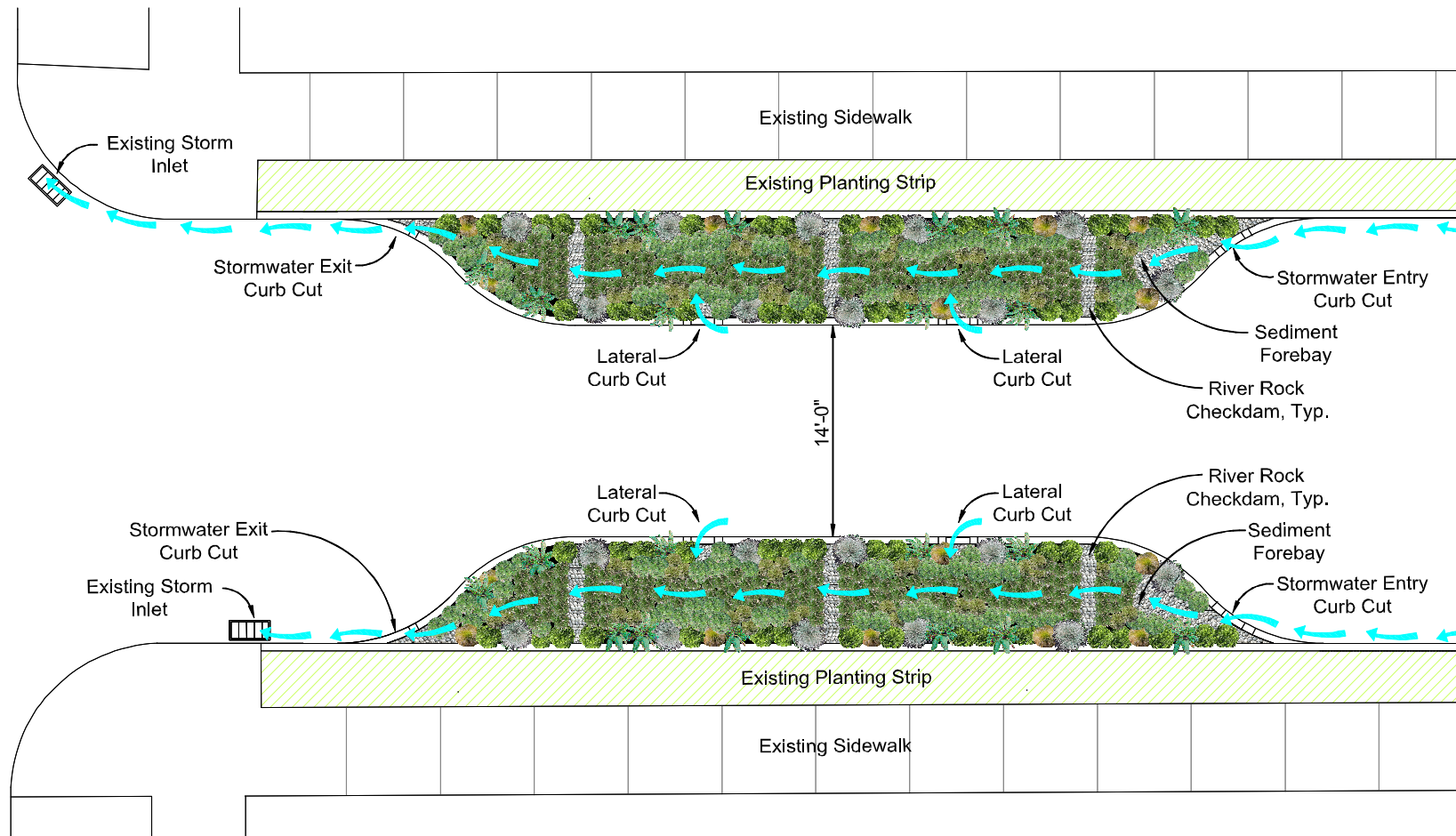












# Stormwater Curb Flow Diagram







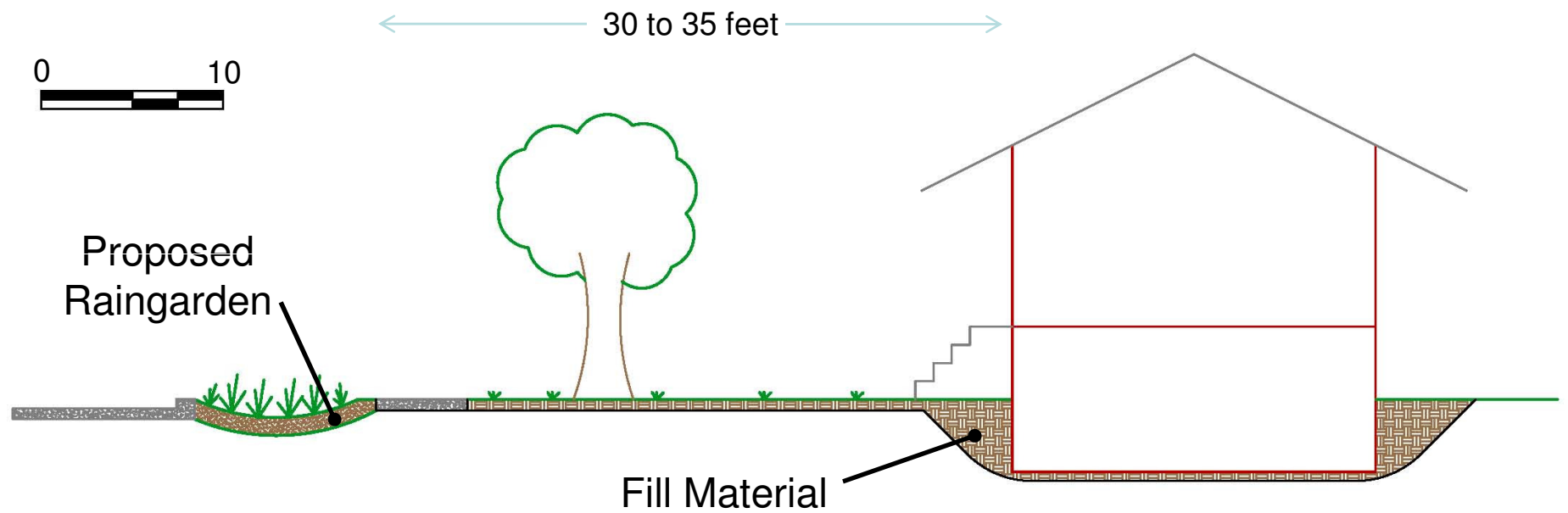


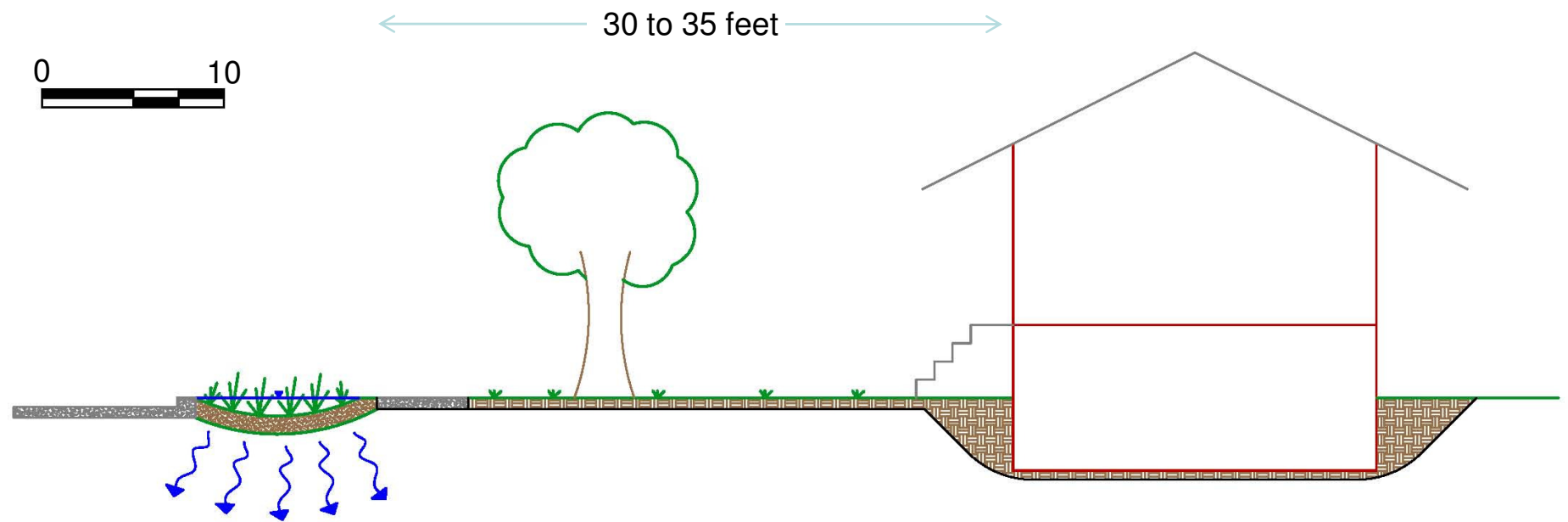














# Subsurface Explorations

- Drilling to install monitoring wells and observe soil conditions.
- October 19 - 20
- Utility Locates
- No Parking Signs



# Trees and plants ...for Ballard Raingardens





# TREES...

... the Backbone of  
The urban streetscape  
& the most important element in  
**every** garden



... trees

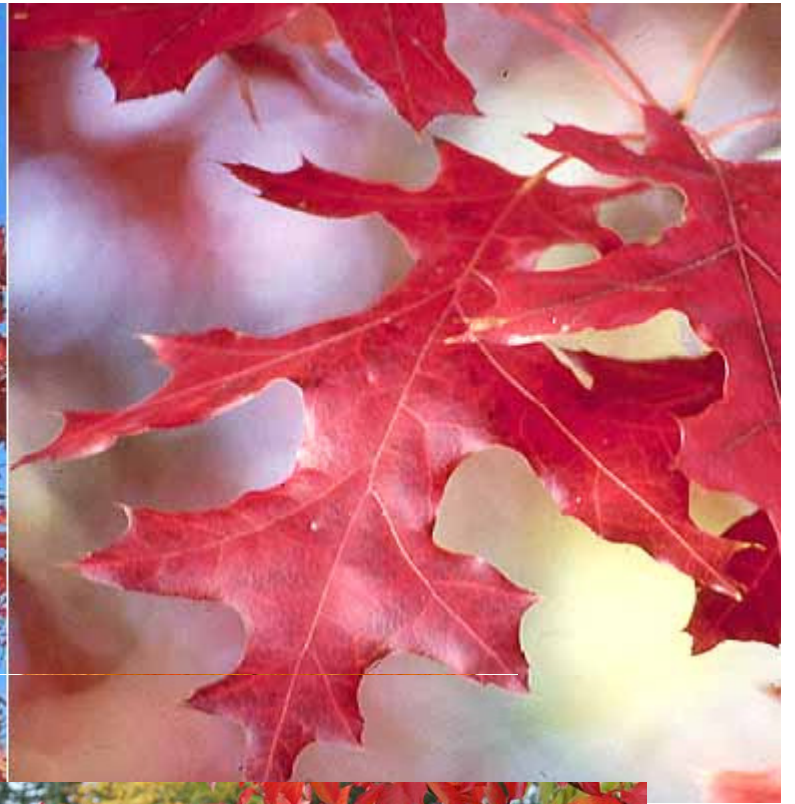
With fall color





# ... trees

With fall color  
... bring life to the  
Neighborhood





# TREES...

... the Backbone of  
The urban streetscape  
& the most important element in  
**every** garden





# TREES... WITH SPRING FLOWERS WELCOME US HOME





# TREES... WITH SPRING FLOWERS

WELCOME US HOME AFTER  
A LONG HARD WINTER







“Eddie’s White Wonder”  
att&  
& Kousa Dogwood  
...BRING YOU HOME  
TO  
BOTH!!



# DIVERSITY

It's a VERY “good thing”!  
... trees to compliment your site:

## Evergreen

### Selections for sites without powerlines:

- Western Red Cedar
- Incense Cedar
- Western Yew
- Hinoki Cypress

### Selections for sites with powerlines:

- Shore Pine
- Excelsior Cedar

## Deciduous

- Tupelo or Katsura
- Scarlet Oak
- Black Maple
- Norwegian Sunset Maple
- Pacific Sunset or Paperbark Maple
- Japanese Snowbell
- Eddie's White or Kousa Dogwood
- Tai Haku Cherry



Tall/  
Narrow

Hinoki Cypress



*Calocedrus decurrens*  
Incense cedar

Tall/ Wide



*Thuja plicata*  
Western red cedar

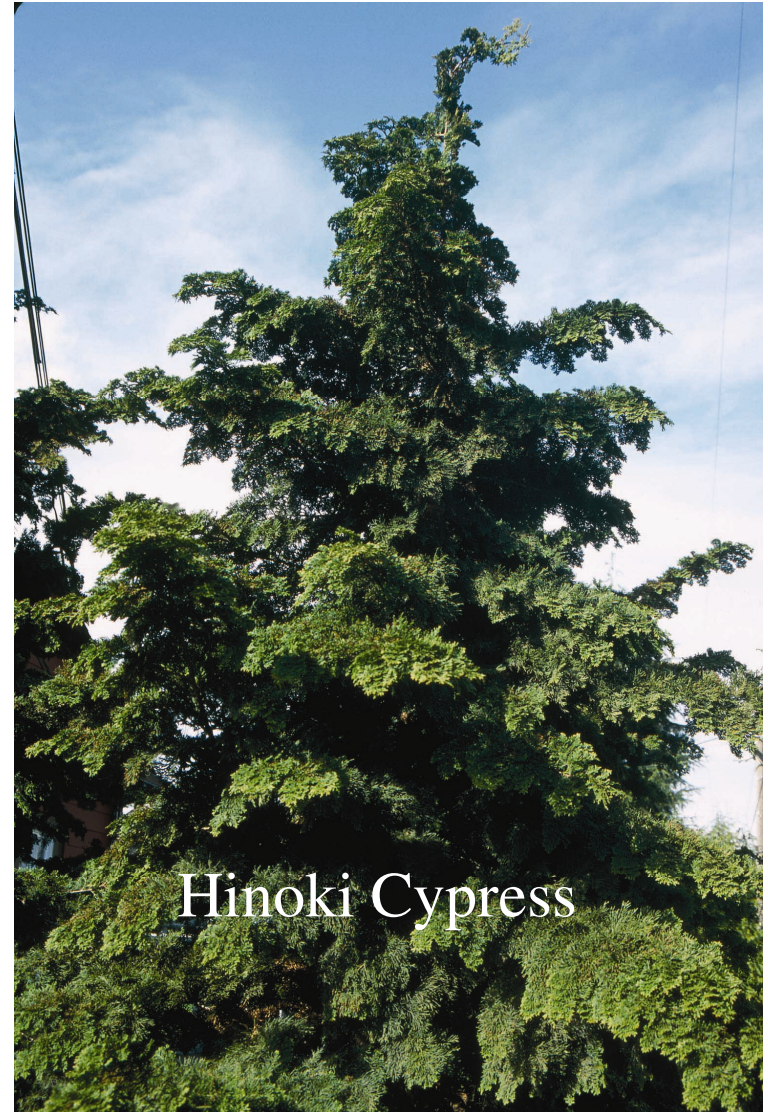
Conifers are  
top  
performers in  
the  
management  
of runoff,  
providing  
privacy  
screening  
and cleaning  
our our air  
and water...





Japanese  
Pine

Selections moderate in size



Hinoki Cypress



## Katsura Tree

*Cercidiphyllum japonicum*  
Katsura tree

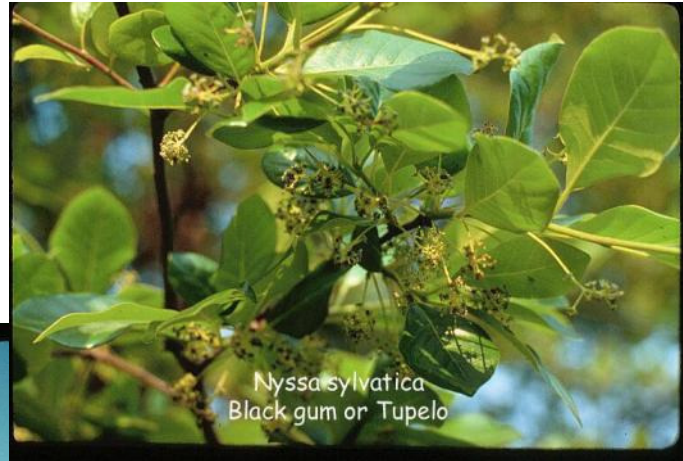


*Cercidiphyllum japonicum*  
Katsura tree

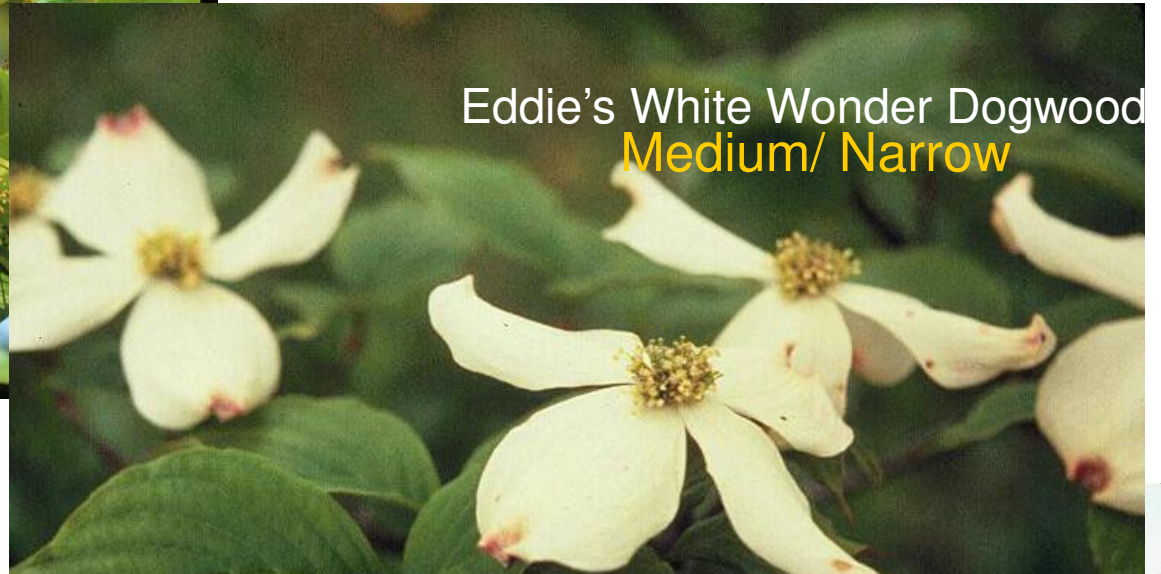
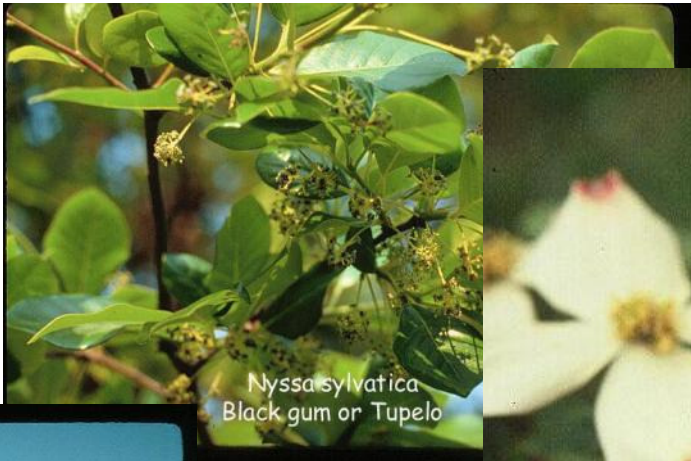
Tall/ Wide



# Tupelo







Medium/ Wide



Low / Wide

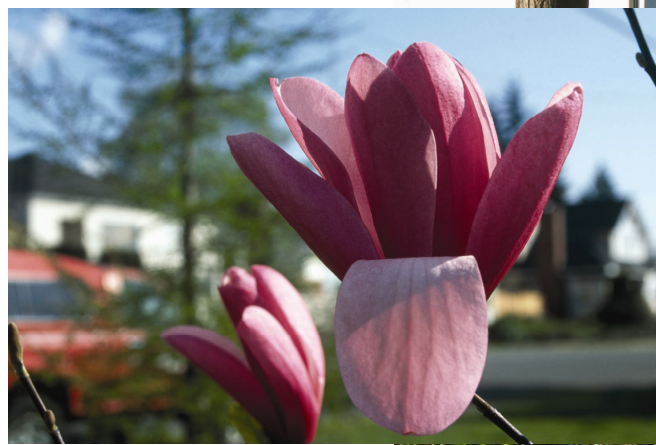


Low / Narrow





Low/ Narrow



- Sunset Maple



c Sunset Maple

Medium / Medium



# **Practically Easy Landscape Maintenance** A Care Manual for Natural Drainage Systems

Winter 2005  
First Edition



## **Website resources**

- soil and composting (King County) [www.metrokc.gov/soils](http://www.metrokc.gov/soils)
- Yard and garden topics (King County) <http://dnr.metrokc.gov/topics/yard-and-garden>
- Water conservation, indoors and outdoors (Saving Water Partnership) [www.savingwater.org](http://www.savingwater.org)  
(206) 684-SAVE (684-7283)
- Less toxic gardening and pest control  
Look under "Natural Yard Care" [www.govlink.org/hazwaste/house](http://www.govlink.org/hazwaste/house)
- Washington State University  
King County Extension [www.metrokc.gov/WSU%20CE](http://www.metrokc.gov/WSU%20CE)
- Washington State University  
Master Gardener Information <http://mastergardener.wsu.edu>  
(206) 296-3440
- gardening in Western Washington  
WSU Master Gardener Program <http://gardening.wsu.edu>
- Native plant information <http://gardening.wsu.edu/nwative>
- salmon information <http://cityofseattle.net/salmon>
- Choosing the right plant for the right place [www.GreatPlantPicks.org](http://www.GreatPlantPicks.org)
- Washington State Noxious Weed Control Board [www.nwcb.wa.gov](http://www.nwcb.wa.gov)

## **Other publications available through websites**

- How to be a salmon Friendly Gardener [www.seattle.gov/utli/Directory/Conservation\\_Index](http://www.seattle.gov/utli/Directory/Conservation_Index)
- Composting at Home [www.seattle.gov/utli/Directory/Conservation\\_Index](http://www.seattle.gov/utli/Directory/Conservation_Index)
- Stop Before You spray:  
A photo guide to beneficial insects [www.govlink.org/hazwaste/house](http://www.govlink.org/hazwaste/house)  
Look under "Natural Yard Care – Avoid pesticides – Beneficial insects"
- Four Reasons to Kick the Weed and Feed Habit [www.govlink.org/hazwaste/house](http://www.govlink.org/hazwaste/house)  
Look under "Natural Lawn Care – Avoid weed and feed"
- The Right Tree Book (Seattle City Light, 1988) [www.seattle.gov/light/publications](http://www.seattle.gov/light/publications)  
Look under "Brochures You Can Print"

## **Plant Identification and Information websites**

- Landscape Plants - Images, Identification and Information  
Oregon State University Department of Horticulture <http://oregonstate.edu/dept/ldplants>
- Plants Database, United States Department of Agriculture <http://plants.usda.gov>
- Web Resources - Directory of Horticulture Websites  
University of Washington, Center for Urban Horticulture, Elisabeth C. Miller Library  
[http://depts.washington.edu/hortlib/resources/hort\\_web\\_sites/plant\\_id.shtml](http://depts.washington.edu/hortlib/resources/hort_web_sites/plant_id.shtml)

- Homeowners Manual Watering



## Practically Easy Watering

### How much water?

**Watering's fun and easy, right? But how often should plants be watered? And how much water do plants really need?**

Deep, infrequent watering that moistens the top 12 to 18 inch root zone is recommended to keep plants alive and healthy and to promote deep roots. Deep roots help plants be drought tolerant.

For the first three years, deeply water plants once every 7 to 14 days in hot, dry weather. Small plants and flowers may need more frequent watering in hot weather – up to twice a week.

*Tip: Watch for stressed plants. When leaves wilt and don't perk up overnight, or evergreen needles start to fade, it's time to water!*

To know you're giving plants enough water, dig down an hour or so after watering to see if the top 12 to 18 inches of soil is moist. If not, add watering time until at least the top 12 inches is moistened.

After three to five years, plants should be well-established, deep rooted and drought tolerant. Watering established plants then becomes an infrequent task – only needed when plants show signs of stress during hot, dry weather.

*Tip: Keep mulch layer thick on planting beds to save watering and weeding time and money! See "Mulching" on page 6 to learn why and how.*

### Too much or too little?

**Be careful to avoid watering too little or too much.**

- 1) **Too Little:** Hand spraying water wets leaves and soil surface but doesn't apply enough water to soak soil down to thirsty roots.
- 2) **Too Much:** Overwatering literally rots roots, invites disease, drowns and starves plants (they can't absorb nutrients from soggy soil).

### Two good ways to water: Soaker Hoses and Spot Watering

**Soaker Hose Watering:** Soaker or Leaky Hoses slowly release water drops all along their length, sink soaker hoses through planting areas and close to plant trunks or stems, or space soaker hose loops 18 inches apart (sandy soils) to 24 inches apart (clay soils) to water a whole area. Moisture is applied directly and efficiently to the soil and plant root zones. Evaporation is minimized, particularly if the hose is covered with 3 to 4 inches of mulch. Start with 40 to 60 minutes and check that water is penetrating 12 to 18 inches deep!

**Spot Watering:** Spot watering is simply running a hose at the base of a plant – uphill side is best, or into a 2 to 5 gallon bucket with holes in the bottom! You can use a garden soaker or shower-type wand (not a spray nozzle) on the hose end to spread out the flow and reduce erosion. Turn the hose on slowly (enough to fill a bucket to the 2 gallon/8 liter mark in 1 minute or so) and let it run for 30 seconds to 5 minutes (¼ to 10 gallons), depending on the plant type and size. Spot watering takes more time, but really helps establish trees and large shrubs, which need more water to reach larger, deeper root systems, or to rescue drought-stressed plants at any time.







**Go to [www.seattle.gov/util/About\\_SPU/Drainage\\_&\\_Sewer\\_System/Natural\\_Drainage\\_Systems/Natural\\_Drainage\\_Overview/index.asp](http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Natural_Drainage_Overview/index.asp)  
look under “Homeowners Manual”/ “Plant ID”**



- Plant Selection  
...three zones









# Ballard Raingardens

A palette of  
nature's  
colors...

...an ever-changing  
canvas





**BALLARD ROADSIDE RAINGARDENS**  
29th Ave NW - 77th St





**BALLARD ROADSIDE RAINGARDENS**  
28th Ave NW - 65th to 67th





**BALLARD ROADSIDE RAINGARDENS**  
28th Ave NW - 71st to 72nd





**BALLARD ROADSIDE RAINGARDENS**  
30th Ave NW - 80th to Loyal Way NW

